Docket No.: PF-0333-2 DIV

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Bandman et al.

Title: HUMAN EXTRACELLULAR MATRIX PROTEINS

Serial No.:	To Be Assigned	Filing Date:	Herewith
Examiner:	To Be Assigned	Group Art Unit:	To Be Assigned

Official Draftsman
Commissioner for Patents
Washington, D.C. 20231

SUBMISSION OF FORMAL DRAWINGS

Sir:

Transmitted herewith are Figure(s) <u>1A, 1B, 1C, 1D, 1E, 1F, 1G, 2A, 2B, 2C, 2D, 2E, 3A, 3B, 4A, 4B, and 4C</u>, as <u>seventeen</u> (17) sheets of formal drawings for this application. Each sheet of drawing indicates the identifying indicia suggested in 37 CFR Section 1.84(c) on the reverse side of the drawings.

Applicants believe that no fee is due with this paper. However, if the Commissioner determines that a fee is necessary, the Commissioner is hereby authorized to charge any additional fees associated with this communication or credit any overpayment to Deposit Account No. **09-0108. A duplicate copy of this communication is enclosed.**

If there are any questions regarding the above, the Examiner is invited to call the undersigned at 650-855-0555.

Respectfully submitted,

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Date: __16ʰ April 2001__   _____

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        9          18          27          36          45          54
CCA AGA TTG   TGA GTC TAG   CCA GTT GGT   GAG CGC TGT   AAT CTG AAC   CAG

        63          72          81          90          99         108
CTG TGT CCA   GAC TGA GGC   CCC ATT ATT   CAT ACT TAA   AAA ATG       AAG

       117         126         135         144         153         162
TGT TTT TTA   ACA TTC CTC   CTC CAA TTG   GTT TAA TGC   TGA ATT ACT   GAA GAG

       171         180         189         198         207         216
GGC TAA GCA   AAA CCA GCT   GCT TGC TCT   GAG GGC TCT   GCA GTG GGG   AGG ACC

       225         234         243         252         261         270
CCG CTC TCC   CCG TGT CCT   CTC CAC GAC   TCG CCC TCT   GGA ATA       AAA

       279         288         297         306         315         324
CAC CCG CGA   GCC CCG AGG   GCC CAG AGG   AGG CCG ACG   TGC CCG AGC   TCC TCC GGG

       333         342         351         360         369         378
GGT CCC GCC   CGC GAG CTT   TCT TCT CGC   CTT ATC TCC   TCC TCG CGC   GTC TTG

       387         396         405         414         423         432
GAC ATG CCA   GGA ATA AAA   AGG ATA CTC   ACT GTT ACC   ATT CTG GCT   CTC TGT CTT
     M   P     G   I   K     R   I   L     T   V   T     I   L   A     L   C   L
```

FIGURE 1A

FIGURE 1B

```
441         450         459             468             477             486
CCA AGC GGG AAT GCA CAG CAG TGC ACG AAT GGC TTT GAC CTG GAT CGC
 P   S   G   N   A   Q   Q   C   T   N   G   F   D   L   D   R

495             504         513             522             531             540
CAG TCA GGA CAG TGT TTA GAT ATT GAT GAA TGC CGA ACC ATC GAG GCC TGC
 Q   S   G   Q   C   L   D   I   D   E   C   R   T   I   E   A   C

549             558         567             576             585             594
CGA GGA ATG ATG TGT GTT AAC CAA AAT GGG TAT TTA TGC ATT CCC CGG
 R   G   D   M   C   V   N   Q   N   G   Y   L   C   I   P   R

603             612         621             630             639             648
ACA AAC CCT GTG TAT CGA GGG CCC TAC TCG AAC TAC ACC CCC TAC TCA
 T   N   P   V   Y   R   G   P   Y   S   N   Y   T   P   Y   S

657             666         675             684             693             702
GGT CCG TAC CCA GCA GCT GCC CCA CTC TCA GCT CCA AAC TAT CCC ACG ATC
 G   P   Y   P   A   A   A   P   L   S   A   P   N   Y   P   T   I

711             720         729             738             747             756
TCC AGG CCT CTT ATA TGC CGC TTT GGA TAC CAG GAT GAA AGC AAC CAA TGT
 S   R   P   L   I   C   R   F   G   Y   Q   D   E   S   N   Q   C

765             774         783             792             801             810
GTG GAT GAC GAG TGT GCA ACA GAT TCC CAC CAG TGC AAC CCC ACC CAG ATC
 V   D   D   E   C   A   T   D   S   H   Q   C   N   P   T   Q   I
```

FIGURE 1B

TGC ATC AAT ACT GAA GGC GGG TAC ACC TGC TCC TGC ACC GAC GGA TAT TGG CTT
C   I   N   T   E   G   G   Y   T   C   S   C   T   D   G   Y   W   L

819   828   837   846   855   864

CTG GAA GGC CAG TGC CAG TTA GAC ATT GAT GAA TGT CGC TAT TAC TGC CAG CAG
L   E   G   Q   C   Q   L   D   I   D   E   C   R   Y   Y   C   Q   Q

873   882   891   900   909   918

CTC TGT GCG AAT GTT CCT GGA TCC TAT TCT TGT ACA TGC AAC CCT GGT TTT ACC
L   C   A   N   V   P   G   S   Y   S   C   T   C   N   P   G   F   T

927   936   945   954   963   972

CTC AAT GAG GAT GGA AGG TCT TGC CAA GAT GTG AAC GAG TGT GCC ACC GAG AAC
L   N   E   D   G   R   S   C   Q   D   V   N   E   C   A   T   E   N

981   990   999   1008   1017   1026

CCC TGC GTG CAA ACC TGC GTC AAC TAC TCT GGC TTC ATC TGC CGC TGT GAC
P   C   V   Q   T   C   V   N   Y   S   G   F   I   C   R   C   D

1035   1044   1053   1062   1071   1080

CCA GGA TAT GAG CTT GAG GAA GAT GGC GTT CAT TGC AGT GAT GAG ATG GAC TGC
P   G   Y   E   L   E   E   D   G   V   H   C   S   D   E   M   D   C

1089   1098   1107   1116   1125   1134

AGC TTC TCT GAG TTC CTC TGC CAA CAT GAG TGT GTG AAC CAG CCC GGC ACA TAC
S   F   S   E   F   L   C   Q   H   E   C   V   N   Q   P   G   T   Y

1143   1152   1161   1170   1179   1188

FIGURE 1C

```
           1197      1206      1215      1224      1233      1242
TTC TGC TCC TGC CCT CCA GGC TAC ATC CTG CTG GAT GAC AAC CGA AGC TGC CAA
 F   C   S   C   P   P   G   Y   I   L   L   D   D   N   R   S   C   Q

           1251      1260      1269      1278      1287      1296
GAC ATC AAC GAA TGT GAG CAC AGG AAC CAC ACG AAC CTG TGC CAG CAG ACG TGC
 D   I   N   E   C   E   H   R   N   H   T   N   L   C   Q   Q   T   C

           1305      1314      1323      1332      1341      1350
TAC AAT TTA CAA GGG GGC TTC AAA TGC ATC GAC CCC ATC CGC TGT GAG GAG CCT
 Y   N   L   Q   G   G   F   K   C   I   D   P   I   R   C   E   E   P

           1359      1368      1377      1386      1395      1404
TAT CTG AGG ATC AGT GAT AAC CGC TGT ATG TGT CCT GCT GAG AAC CCT GGC TGC
 Y   L   R   I   S   D   N   R   C   M   C   P   A   E   N   P   G   C

           1413      1422      1431      1440      1449      1458
AGA GAC CAG CCC TTT ACC ATC TTG TAC CGG GAC ATG GAC GTG GTC TCA GGA CGC
 R   D   Q   P   F   T   I   L   Y   R   D   M   D   V   V   S   G   R

           1467      1476      1485      1494      1503      1512
TCC GTT CCC GCT GAC ATC TTC CAA ATG CAA GCC ACG ACC CGC TAC CCT GGG GCC
 S   V   P   A   D   I   F   Q   M   Q   A   T   T   R   Y   P   G   A

           1521      1530      1539      1548      1557      1566
TAT TAC ATT TTC CAG ATC AAA TCT GGG AAT GAG GGC AGA GAA TTT TAC ATG CGG
 Y   Y   I   F   Q   I   K   S   G   N   E   G   R   E   F   Y   M   R
```

FIGURE 1D

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     1575      1584      1593      1602      1611      1620
CAA ACG GGC CCC ATC AGT GCC ACC CTG GTG ATG ACA CGC CCC ATC AAA GGG CCC
 Q   T   G   P   I   S   A   T   L   V   M   T   R   P   I   K   G   P

     1629      1638      1647      1656      1665      1674
CGG GAA ATC CAG CTG GAC TTG GAA ATG ATC ACT GTC AAC ACT GTC ATC AAC TTC
 R   E   I   Q   L   D   L   E   M   I   T   V   N   T   V   I   N   F

     1683      1692      1701      1710      1719      1728
AGA GGC AGC TCC GTG ATC CGA CTG CGG ATA TAT GTG TCG CAG TAC CCA TTC TGA
 R   G   S   S   V   I   R   L   R   I   Y   V   S   Q   Y   P   F

     1737      1746      1755      1764      1773      1782
GCC TCG GGC TGG AGC CTC CGA CGC TGC CTC TCA TTG GCA CCA AGG GAC AGG AGA

     1791      1800      1809      1818      1827      1836
AGA GAG ATA ACA GAG AGA ATG AGA GCG ACA CAG ACG TTA GGC ATT TCC TGC

     1845      1854      1863      1872      1881      1890
TGA ACG TTT CCC CGA AGA GTC AGC CCC GAC TTC CTG ACT CTC ACC TGT ACT ATT

     1899      1908      1917      1926      1935      1944
GCA GAC CTG TCA CCC TGC AGG ACT TGC CAC CCC CAG TTC CTA TGA CAC AGT TAT

     1953      1962      1971      1980      1989      1998
CAA AAA GTA TTA TCA TTG CTC CCC TGA TAG AAG ATT GTT GGT GAA TTT TCA AGG
```

FIGURE 1E

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      2007            2016            2025            2034            2043            2052
CCT TCA GTT     TAT TTC CAC     TAT TTT CAA     AGA AAA TAG     ATT AGG TTT     GCG GGG GTC

      2061            2070            2079            2088            2097            2106
TGA GTC TAT     GTT CAA AGA     CTG TGA ACA     GCT TGC TGT     CAC TTC TTC     ACC TCT TCC

      2115            2124            2133            2142            2151            2160
ACT CCT CTC     ACT GTG TTA     CTG CTT TGC     AAA GAC CCG     GGA GCT GGC     GGG GAA

      2169            2178            2187            2196            2205            2214
CCC TGG GAG     TAG CTA GTT     TTG CGT ACA     CAG AGA AGG     CTA TGT AAA     CAA

      2223            2232            2241            2250            2259            2268
ACC ACA GCA     GGA TCG AAG     GGT TTT TAG     AGA ATG TGT     TTC AAA ACC     ATG CCT GGT

      2277            2286            2295            2304            2313            2322
ATT TTC AAC     CAT AAA AGA     AGT TTC AGT     TGT CCT TAA     ATT TGT     ATA ACG GTT TAA

      2331            2340            2349            2358            2367            2376
TTC TGT CTT     GTT CAT TTT     GAG TAT TTT     TAA AAA ATA     TGT CGT AGA     ATT CCT TCG

      2385            2394            2403            2412            2421            2430
AAA GGC CTT     CAG ACA CAT     GCT ATG TTC     TGT CTT CCC     AAA CCC AGT     CTC CTC TCC

      2439            2448            2457            2466            2475            2484
ATT TTA GCC     CAG TGT TTT     CTT TGA GGA     CCC CTT AAT     CTT GCT TTC     TTT AGA ATT
```

FIGURE 1F

```
      2493      2502      2511      2520      2529      2538
TTT ACC CAA TTG GAT TGG AAT GCA GAG GTC TCC AAA CTG ATT AAA TAT TTG AAG

      2547
AGA AAA AAA AAA
```

FIGURE 1G

```
              9        18       27       36       45       54
TG  GGT GCA  AGC TCA CAA  CCG TAA CAG  CCA CCA GAC  AAG CTT CAG  TGG CCG GCC

              63       72       81       90       99      108
CTT CAC ATC  CAG ACT TGC  CTG AGA GGA  CCC ACC GAG  TGT CCA GTG  AGT

             117      126      135      144      153      162
TGC CCC ATG  GGG ACC ACA  GCC AGA GCA  GCC TTG GTC  TTG ACC TAT  TTG GCT
        M     G   T   T    A   R   A    A   L   V    L   T   Y    L   A

             171      180      189      198      207      216
GTT GCT GCC  TCT GAG GGA  TTC ACG GCT  ACA GGA CAG  AGG CAG CTG
 V   A   S    A   E   G    F   T   A    T   G   Q    R   Q   L

             225      234      243      252      261      270
AGG CCA GAG  CAC TTT CAA  GAA GTT GGC  TAC GCA CCC  CCC TCC CCA  CCC CTA
 R   P   E    H   F   Q    E   V   G    Y   A   P    P   S   P    P   L

             279      288      297      306      315      324
TCC CGA AGC  CTC CCC ATG  GAT CAC CCT  GAC TCC TCT  CAG CAT GGC  CCT CCC TTT
 S   R   S    L   P   M    D   H   P    D   S   S    Q   H   G    P   P   F

             333      342      351      360      369      378
GAG GGA CAG  CAG AGT CAA  CCC CCT CCT  CCT TCT CAG  GAG GCC ACC  CCT CTC CAA
 E   G   Q    Q   S   Q    P   P   P    P   S   Q    E   A   T    P   L   Q
```

FIGURE 2A

CAG GAA AAG CTG CTA CCT GCC CAA CTC CCT GCT GAA AAG GAA GTG GGT CCC CCT
 Q   E   K   L   L   P   A   Q   L   P   A   E   K   E   V   G   P   P
        387   396   405   414   423   432

CTC CCT GAA GCT CAG GAA GTC CCC CTC AAA GAG CTG CCC TCT CAG CAC CCC
 L   P   E   A   Q   E   V   P   L   K   E   L   P   S   Q   H   P
        441   450   459   468   477   486

AAT GAA CAG AAG GAA GGA ATG CCA GCT CCA TTT GGG GAC CAG AGC CAT CCA GAA
 N   E   Q   K   E   G   M   P   A   P   F   G   D   Q   S   H   P   E
        495   504   513   522   531   540

CCT GAG TCC TGG AAT GCA GCC CAG CAC TGC CAA CAG GAC CGG TCC CAA GGG GGC
 P   E   S   W   N   A   A   Q   H   C   Q   D   R   S   Q   G   G
        549   558   567   576   585   594

TGG GGC CAC CGG CTG GAT GGC TTC CCC CCT GGG CGG CCT TCT CCA GAC AAT CTG
 W   G   H   R   L   D   G   F   P   P   G   R   P   S   P   D   N   L
        603   612   621   630   639   648

AAC CAA ATC TGC CTT CCT AAC CGT CAG CAT GTG GTA TAT GGT CCC TGG AAC CTA
 N   Q   I   C   L   P   N   R   Q   H   V   V   Y   G   P   W   N   L
        657   666   675   684   693   702

CCA CAG TCC TAC AGC CAC CTC ACT CGC CAG GGT GAG ACC CTC AAT TTC CTG
 P   Q   S   Y   S   H   L   T   R   Q   G   E   T   L   N   F   L
        711   720   729   738   747   756

FIGURE 2B

```
 765         774         783         792         801         810
GAG ATT GGA TAT TCC CGC TGC TGC CAC ACA AAC CGC CTA GAG
 E   I   G   Y   S   R   C   C   H   T   N   R   L   E

 819         828         837         846         855         864
TGT GCC AAA CTT GTG TGG GAG GAA ATG AGC GCA TTC TGT GAG GCC GAG TTC
 C   A   K   L   V   W   E   E   M   S   A   F   C   R   A   E   F

 873         882         891         900         909         918
TCG GTC AAG ACC CGA CAC TGG TGC TGC ACG CGG CAG GGG GAG GCT CGG TTC
 S   V   K   T   R   H   W   C   C   T   R   Q   G   E   A   R   F

 927         936         945         954         963         972
TCC TGC TTC CAG GAG GAA GCT CCC CAC TAC CAG CTC CGG GCC TGC CCC
 S   C   F   Q   E   E   A   P   H   Y   Q   L   R   A   C   P

 981         990         999        1008        1017        1026
AGC CAT CAG CCT GAT ATT TCC TCG GGT CTT GAG CTG CCT TTC CCT GGG GTG
 S   H   Q   P   D   I   S   S   G   L   E   L   P   F   P   G   V

1035        1044        1053        1062        1071        1080
CCC ACA TTG GAC AAT ATC AAG AAC ATC TGC CAC CTG AGG CGC TTC CGC TCT GTG
 P   T   L   D   N   I   K   N   I   C   H   L   R   R   F   R   S   V

1089        1098        1107        1116        1125        1134
CCA CGC AAC CTG CCA GCT ACT GAC CCC CTA CAA AGG GAG CTG CTG GCA CTG ATC
 P   R   N   L   P   A   T   D   P   L   Q   R   E   L   L   A   L   I
```

FIGURE 2C

```
1143        1152        1161        1170        1179        1188
CAG CTG GAG AGG GAG TTC CAG CGC TGC TGC CGC CAG GGG AAC AAT CAC ACC TGT
 Q   L   E   R   E   F   Q   R   C   C   R   Q   G   N   N   H   T   C

1197        1206        1215        1224        1233        1242
ACA TGG AAG GCC TGG GAG GAT ACC CTT GAC AAA TAC TGT GAC CGG GAG TAT GCT
 T   W   K   A   W   E   D   T   L   D   K   Y   C   D   R   E   Y   A

1251        1260        1269        1278        1287        1296
GTG AAG ACC CAC CAC TTG TGT TGC CGC CAC CCT CCC AGC CCT ACT CGG GAT
 V   K   T   H   H   L   C   C   R   H   P   P   S   P   T   R   D

1305        1314        1323        1332        1341        1350
GAG TGC TTT GCC CGT CGG GCT CCT TAC CCC AAC TAT GAC CGG GAC ATC TTG ACC
 E   C   F   A   R   R   A   P   Y   P   N   Y   D   R   D   I   L   T

1359        1368        1377        1386        1395        1404
ATT GAC ATC GGT CGA GTC ACC CCC AAC CTC ATG GGC CAC CTC ATC TGT GGA AAC CAA
 I   D   I   G   R   V   T   P   N   L   M   G   H   L   I   C   G   N   Q

1413        1422        1431        1440        1449        1458
AGA GTT CTC ACC AAG CAT AAA CAT ATT CCT GGG CTG ATC CAC AAC ATG ACT GCC
 R   V   L   T   K   H   K   H   I   P   G   L   I   H   N   M   T   A

1467        1476        1485        1494        1503        1512
CGC TGC TGT GAC CTG CCA TTT CCA GAA CAG GCC TGT GCA GAG GAG GAG GAG AAA
 R   C   C   D   L   P   F   P   E   Q   A   C   C   E   E   E   E   K
```

FIGURE 2D

```
     1521        1530        1539        1548        1557        1566
TTA ACC TTC ATC AAT GAT CTG TGT GGT CCC CGA AAC ATC TGG CGA GAC CCT
 L   T   F   I   N   D   L   C   G   P   R   N   I   W   R   D   P

     1575        1584        1593        1602        1611        1620
GCC CTC TGT TAC CTG AGT CCT GGG GAT GAA CAG GTC AAC TGC TTC AAC ATC
 A   L   C   Y   L   S   P   G   D   E   Q   V   N   C   F   N   I

     1629        1638        1647        1656        1665        1674
AAT TAT CTG AGG AAC GTG GCT CTA GTG TCT GGA GAC ACT GAG AAC GCC AAG GGC
 N   Y   L   R   N   V   A   L   V   S   G   D   T   E   N   A   K   G

     1683        1692        1701        1710        1719        1728
CAG GGG GAG CAG GGC TCA ACT GGA GGA ACA AAT ATC AGC TCC ACC TCT GAG CCC
 Q   G   E   Q   G   S   T   G   G   T   N   I   S   S   T   S   E   P

     1737        1746        1755        1764        1773        1782
AAG GAA GAA TGA GTC ACC CCA GAG CCC TAG AGG GTC AGA TGG GGG GAA CCC CAC
 K   E   E

     1791        1800        1809        1818        1827        1836
CCT GCC CCA CCC ATC ATT ACA CTC TGA ACA CTA AAC ACC TCT TGG ATT TGG TGT

     1845        1854        1863        1872        1881        1890
CCT CAT TGT CTA TCT AAT GTC TCA CCC GCA GTG TTT TAA GTG GTG GAT CTT GGT GCC

     1899
CTG GCC CAG G
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FIGURE 2E

```
1    M P G I K R I L T V T I L A L C L P S P   45517
1    M A T S G V L P G G G F V A S A A A V A   GI 458228


21   G N A Q A Q C T N G F D L D R Q S G Q C   45517
21   G P E M Q T G R N N F V I R R N P A D -   GI 458228


41   L D I D E C R T I P E A C R G D M M C V   45517
40   - - - - - - - - - - - - - - - - - - -    GI 458228


61   N Q N G G Y L C I P R T N P V Y R G P Y   45517
40   - - - - - - - - - - - - - - - - - - -    GI 458228


81   S N P Y S T P Y S G P Y P A A A P P L S   45517
40   - - - - - - - - - - - - - - - - - P Q R   GI 458228


101  A P N Y P T I S R P L I C R F G Y Q M D   45517
43   I P S N P - - S H R I Q C A A G Y E Q S   GI 458228


121  E S N Q C V D V D E C A T D S H Q C N P   45517
61   E H N V C Q D I D E C T A G T H N C R A   GI 458228


141  T Q I C I N T E G G Y T C S C T D G Y W   45517
81   D Q V C I N L R G S F A C Q C P P G Y Q   GI 458228


161  L L E G Q C L D I D E C R Y G - Y C Q Q   45517
101  K R G E Q C V D I D E C T I P P Y C H Q   GI 458228


180  L C A N V P G S Y S C T C N P G F T L N   45517
121  R C V N T P G S F Y C Q C S P G F Q L A   GI 458228


200  E D G R S C Q D V N E C A T E N P C V Q   45517
141  A N N Y T C V D I N E C D A S N Q C A Q   GI 458228


220  T C V N T Y G S F I C R C D P G Y E L E   45517
161  Q C Y N I L G S F I C Q C N Q G Y E L S   GI 458228
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FIGURE 3A

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240  E D G V H C S D M D E C S F S E F L C Q   45517
181  S D R L N C E D I D E C R T S S Y L C Q   GI 458228

260  H E C V N Q P G T Y F C S C P P G Y I L   45517
201  Y Q C V N E P G K F S C M C P Q G Y Q V   GI 458228

280  L D D N R S C Q D I N E C E H R N H T C   45517
221  V R - S R T C Q D I N E C E T T N E - C   GI 458228

300  N L Q Q T C Y N L Q G G F K C I D P I R   45517
239  R E D E M C W N Y H G G F R C Y P R N P   GI 458228

320  C E E P Y L R I S D N R C M C P A E N P   45517
259  C Q D P Y I L T P E N R C V C P V S N A   GI 458228

340  G C R D Q P F T I L Y R D M D V V S G R   45517
279  M C R E L P Q S I V Y K Y M S I R S D R   GI 458228

360  S V P A D I F Q M Q A T T R Y P G A Y Y   45517
299  S V P S D I F Q I Q A T T I Y A N T I N   GI 458228

380  I F Q I K S G N E G R E F Y M R Q T G P   45517
319  T F R I K S G N E N G E F Y L R Q T S P   GI 458228

400  I S A T L V M T R P I K G P R E I Q L D   45517
339  V S A M L V L V K S L S G P R E H I V D   GI 458228

420  L E M I T V N T V I N F R G S S V I R L   45517
359  L E M L T V S S I G T F R T S S V L R L   GI 458228

440  R I Y V S Q Y P F                         45517
379  T I I V G P F S F                         GI 458228
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FIGURE 3B

```
1    M G T T A R A A L V L T Y L A V A S A A   1621777
1    M G T V S R A A L I L A C L A L A S A A   GI 496120

21   S E G G F T A T G Q R Q L R P E - - -     1621777
21   S E G A F K A S D Q R E M T P E R L F Q   GI 496120

37   H F Q E V G Y A A P P S P P L S R S L P   1621777
41   H L H E V G Y A A P P S L P Q T R R L R   GI 496120

57   M D H P D S S Q H G P P - F E G Q S Q V   1621777
61   V D H S V T S L H D P P L F E E Q R E V   GI 496120

76   Q P P P S Q E A T P L Q Q E K L L P A Q   1621777
81   Q P P S S P E D I P V Y E E D W P T F L   GI 496120

96   L P A E K E V G P P L P Q E A V P L Q K   1621777
101  N P N V D K A G P A V P Q E A I P L Q K   GI 496120

116  E L P S L Q - - - - - - - - - - - - H P   1621777
121  E Q P P P Q V H I E Q K E I D P P A Q P   GI 496120

124  N E - - - Q K E G M P A P F G D Q S H P   1621777
141  Q E E I V Q K E V K P H T L A G Q L P P   GI 496120

141  E P E S W N A A Q H C Q Q D R S Q G G W   1621777
161  E P R T W N P A R H C Q Q G R - R G V W   GI 496120

161  G H R L D G F P P G R P S P D N L N Q I   1621777
180  G H R L D G F P P G R P S P D N L K Q I   GI 496120

181  C L P N R Q H V V Y G P W N L P Q S S Y   1621777
200  C L P E R Q H V I Y G P W N L P Q T G Y   GI 496120

201  S H L T R Q G E T L N F L E I G Y S R C   1621777
220  S H L S R Q G E T L N V L E T G Y S R C   GI 496120
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FIGURE 4A

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221 | C H C R S H T N R L E C A K L V W E E A | 1621777
240 | C P C R S D T N R L D C L K L V W E D A | GI 496120

241 | M S R F C E A E F S V K T R P H W C C T | 1621777
260 | M T Q F C E A E F S V K T R P H L C C R | GI 496120

261 | R Q G E A R F S C F Q E A P Q P H Y Q | 1621777
280 | L R G E E R F S C F Q K E A P R P D Y L | GI 496120

281 | L R A C P S H Q P D I S S G L E L P F P | 1621777
300 | L R P C P V H Q N G M S S G P Q L P F P | GI 496120

301 | P G V P T L D N I K N I C H L R R F R S | 1621777
320 | P G L P T P D N V K N I C L L R R F R A | GI 496120

321 | V P R N L P A T D P L Q R E L L A L I Q | 1621777
340 | V P R N L P A T D A I Q R Q L Q A L T R | GI 496120

341 | L E R E F Q R C C R Q G N N H T C T W K | 1621777
360 | L E T E F Q R C C R Q G H N H T C T W K | GI 496120

361 | A W E D T L D K Y C D R E Y A V K T H H | 1621777
380 | A W E G T L D G Y C E R E L A I K T H P | GI 496120

381 | H L C C R H P P S P T R D E C F A R R A | 1621777
400 | H S C C H Y P P S P A R D E C F A H L A | GI 496120

401 | P Y P N Y D R D I L T I D I G R V T P N | 1621777
420 | P Y P N Y D R D I L T L D L S R V T P N | GI 496120

421 | L M G H L C G N Q R V L T K H K H I P G | 1621777
440 | L M G Q L C G S G R V L S K H K Q I P G | GI 496120

441 | L I H N M T A R C C D L P F P E Q A C C | 1621777
460 | L I Q N M T V R C C E L P Y P E Q A C C | GI 496120
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FIGURE 4B

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461  A E E E K L T F I N D L C G P R R N I W   1621777
480  G E E E K L A F I E N L C G P R R N S W   GI 496120

481  R D P A L C C Y L S P G D E Q V N C F N   1621777
500  K D P A L C C D L S P E D K Q I N C F N   GI 496120

501  I N Y L R N V A L V S G D T E N A K G Q   1621777
520  T N Y L R N V A L V A G D T G N A T G L   GI 496120

521  G E Q G S T G G T N I S S T S E P K E E   1621777
540  G E Q G P T R G T D A N P A P G S K E E   GI 496120
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FIGURE 4C